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### Steammer Mass Ecoprint Tool Engineering In Improving Batik Production Skills

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#### Abstract

Beginner entrepreneurs who are members of the "Sanggar Batik Rakyat" (SABARA) need the ability to always improve their competence and potential so that they are able to compete and be efficient with competitors in the same field. As a forum for beginner batik SMEs that focus on utilizing the natural environment as a commodity that has high economic value, SABARA community is always moving forward and improving their abilities by conducting training and workshops as an effort to improve skills. The products produced by the association have begun to be very diverse, suitable to be marketed and following trends in the market with safe and environmentally friendly commodities. Implementation of appropriate technology in the form of engineering the steammer mass ecoprint tool to produce ecoprints in large quantities not only per sheet but can be in 1 roll at a time. The results of ecoprint products remain unique because leaf blade objects cannot be made the same as an alternative to developing ecoprints. The purpose of using the ecoprint steamer mass tool is to cut production costs in the hope of being able to compete on the price side with the same quality. With this technology, ecoprint batik products can be mass produced, equipped with indicators that can control the heat temperature according to the heat needs of the steaming time. A standardized control system and indicators that can regulate the processing time are expected to produce ecoprint batik products that have better quality, mass production processes, and can reduce costs which impact on product competitiveness to be ready to be marketed.

**Keywords:** mass steammer tool, ecoprint technique, beginner entrepreneur

#### INTRODUCTION

The new order of life, which has come into force after the pandemic due to COVID-19 and economic conditions that have begun to squirm, applies in almost all communities. Efforts to maintain life by looking for a source of income by opening a business with new opportunities or channeling the creativity possessed by entrepreneurs as a source of income. The ability to hone skills and abilities requires continuous mentoring so that novice entrepreneurs have broader insights and characteristics to be able to produce products that can be sold.

An entrepreneur is someone who has the soul and ability to create and innovate (Meredith et. al., 1995; Siagian, 1998), with the ability possessed to create something new and different. Longenecker (2001) explains that an enterprise is someone who starts and or operates a business. The formulation of the entrepreneur that is developing today is mostly derived from the concept of Joseph A. Schumpeter in 1934. According to Schumpeter (1934) entrepreneurs are entrepreneurs who carry out new combinations in engineering and commercial fields into practical forms.

A business will be more optimal if it is carried out jointly, not only minimizing the capital used, the results of joint efforts are usually more profitable than individual businesses (Suryana, 2006). Building a network of communities that have the same vision and produce almost the same product to be able to compete with competitors with almost the same product requires a network of which together can improve abilities and skills (Suryana, 2013). Synergize with each other in activities and activities both in training and education, product exhibitions, marketing, production so that each individual in the group becomes thriving because jointly face challenges and competition (Rahman, 2009).

Budding Entrepreneurs who are members of SABARA require the ability to increase competence and potential so that they are able to compete and be effective with competitors in the same field. As one of the forums for novice batik SMEs that focus on the use of the surrounding nature as a commodity that has high economic value, the SABARA community is always moving to advance and improve their abilities by conducting training and workshops as an effort to improve skills. Community empowerment as an effort to provide *empowerment* or *strengthening* to the target community to help explore the ability to find new alternatives in the development of livelihood in the community (Hakim, 1988; Sumodiningrat, 2009).

One of the communities formed is in the Sembungharjo Village area, Genuk District. Based on the characteristics of the local community, business development is adjusted to the conditions there. One of the things that will be developed is the use of plants or leaves there as ecoprint products. The Ecoprint technique is a technique of giving patterns to materials or fabrics using natural materials ranging from dyes used for tannins, as well as to create patterns that can be taken from various types of leaves that can produce color or from flowers. The basic materials used can be various types of fabrics such as cotton, silk, hemp fiber fabric, *sansievera* fiber, especially fabrics made from natural fibers. In its development, the ecoprint technique can be used to make blat motifs not only on a piece of cloth but also on animal skins such as cowhide, goats, deer and others. The results of the motifs produced through the ecoprint technique produce unique and ethnic images (Mardikanto, 2014).

The manufacture of ecoprint fabric with a limited width of fabric (maximum 115 cm with a length of 2.5 meters) biasa is carried out using the usual steamer to steam rice or food with a diameter of 50 cm. The fabric production process must be folded so that it can fit in the steamer. The main problem with using a simple steamer when rolled can be very thick and the heat that goes all the way to the very front area becomes very limited.



**Figure 1.** Ecoprint Heating Process with Simple Steamer

The use of *steammer mass* tool engineering Ecoprint technique has not been understood at all by craftsmen who are members of the SABARA community, so implementation is needed to use tools that have been designed to produce massal intended for community members and communities in need. The introduction of equipment in the form of Engineering Alat Steammer Ecoprint to increase skill capacity so that the products produced are standardized and can be in large quantities for one process. Dintroduce business processes that can cut costs so that the products produced can have competitiveness and are worth selling. To achieve the goals as above, the objectives of this study are as follows:

1. Provide a correct understanding of the business process of making ecoprints in media fabric directly in sheet rolls.
2. Applying *steammer mass ecoprint* tool engineering (mass production steamer)

3. Provide hands-on training on the business process of making ecoprints using tools.

### Theoretical Foundations

Economic theory tends to view *entrepreneurship* in a functional sense as a factor of production in a dynamic economy to obtain profits in return for the services it obtains. The change in resource utilization patterns into a new combination in Schumpeter's terms (1934) led to the transformation of the company into something significantly different. The transformation of the company from something old to something new reflects the behavior of *entrepreneurship*. The theory of entrepreneurship (*entrepreneurial theory*) proposed by Joseph A. Schumpeter emphasizes the individual phenomenon of an entrepreneur, while according to Lumpkin and Dess (1966) the concept of entrepreneurship can occur at the individual, group and as a whole level. Companies that accommodate company activities are called entrepreneurial companies (*entrepreneurial firms*).

*Entrepreneurship* in general has almost the same essence, which refers to the traits, dispositions and characteristics inherent in a person who has a strong will to realize innovative ideas into the real business world and can develop them resiliently (Drucker, 1994). Furthermore, according to Drucker (1994) entrepreneurship is the ability to create something new and different (*ability to create the new and different*). Epistemologically, entrepreneurship is a value needed to start a business (*start-up phase*) or a process in working on something new (*creative*) and something different (*innovative*). Entrepreneurship in a company is known as *corporate entrepreneurship*. In this study, this is explained through risk-taking variables innovating by entrepreneurs. The relevance of Joseph A Schumpeter's theory of entrepreneurship in the context of a company is that the growth of a company is largely determined by the entrepreneurs who work for the company (Tjahjaningsih, 2012).

Education and training play a vital rule as a force of entrepreneurial spirit, especially in *knowledge-based*. Entrepreneurs with new ideas or knowledge intend to commercialize the value of knowledge. Professionals with educational backgrounds will bring into it higher intellectual abilities, knowledge and social contacts followed on making strategic choices related to performance (Tjahjaningsih, 2017).

One of the efforts to improve skills in making ecoprints and speed up the production process requires one tool that can facilitate and assist in carrying out the production process using the Ecoprint technique. The implementation of mass steamer engineering for the purpose of cutting production costs while still producing unique products. With mass production, it is hoped that members who are members of the people's batik studio, their products will be able to compete and provide additional income. This is useful for increasing people's income (Tjahjaningsih, 2016)

The use of fabric for the ecoprint production process with a fabric of more than 2.5 meters requires a tool that can be used to roll the fabric without folding so that the shortcomings caused by the use of a simple steamer can be reduced and with a steamer for mass production it shortens the process time and the person handling the ecoprint production process. Ecoprint mass Steammer tool shown in figure 2.



**Figure 2.** Ecoprint Mass Steammer Tool

## METHOD RESEARCH

The implementation of research with the implementation of the use of mass ecoprint tools for mass production of ecoprint fabrics is carried out with the following steps:

1. *Focus Group Discussion* conducted with the SABARA Pokja I Genuk community
2. Planning supporting equipment for making ecoprints in large quantities / mass.
3. Map participants per group to make the activity really effective, and each group is at most 5 people/group.
4. An understanding of the ecoprint process that can be done with a simple steamer for small media) and an explanation of the use of Stemmer Mas (Mass heater) tools when using fabric media that is panjang
5. Participants are given basic knowledge about fabric handlers before the ecoprint production business process is carried out, and dyes that can be used to produce a variety of products,
6. Participants are given basic knowledge and development about Ecoprint techniques and processes carried out with steammer mass tools, so that participants are able to carry out the production process independently and with a team that has been given a job description per activity in business processes.
7. In the implementation of the application of engineering, the *mass ecoprint steammer* tool for novice entrepreneurs directly applies in fabric at least 6 meters long at once and steaming by rolling without folding.
8. The activity is carried out in several stages so that the ecoprint business process can really be well understood by the participants.

## RESULT AND DISCUSSION

Innovation begins with a creative idea, where this creative idea does not always have to strive for the discovery or achievement of something "big" but can also take the form of small change efforts to improve the practice that has prevailed. An innovative entrepreneur is a creative person and believes in better ways. The provision of material begins with providing an entrepreneurial mindset with the aim of strengthening institutions so that the members involved are motivated and always strive to increase creativity with various existing potensi. One of the efforts untuk to explore the potential and materials that exist by providing direct examples of the process of making Ecoprint starting from preprocessing by handling fabrics through mordanting and selecting leaves and flowers that can be used for the production process. Knowledge of the use of colors that can be used to provide different creativity and diversity of the products produced.

Furthermore, it provides skills training to hone skills by practicing how the ecoprint mass engucus tool works which has previously been carried out training activities to produce ecoprint fabrics using a simple steamer. To hone skills by being introduced to a production process that can accelerate the production of fabrics in mass quantities by practicing the use of tools directly.

Participants immediately practice according to the instructions so that the activity becomes more fun and remains serious to keep following every process that takes place. Participants enthusiastically repeated what was done after seeing the results of the ecoprint. The sustainability of SABARA's activities is still being evaluated to see the effectiveness and performance produced in this community.

The implementation of this activity was declared successful according to the plan can be seen based on the involvement of pelatihan participants and technical guidance in handling the tool to be very enthusiastic about following from beginning to completion and can see the results in the form of unique Ecoprint fabric products and each can be a peculiarity of motifs produced from the leaves and flowers of surrounding plants such as Jati leaves, Distance Wulung, Paku-pakuan, daun Papaya Japan dan lain-lain by using the ecoprint mass steammer tool to be able to operate equipment that is still new and new to craftsmen. Start to get used to carrying out the production process by practicing direct scara and understanding the operation of the tool if you want to make ecoprint products en masse.





**Figure 3.** Pof ecoprint products using the Mass Steammer Ecoprint Tool

## CONCLUSION

1. Standard quality production of Ecoprint fabrics is expected to save the production process which has an impact on production costs that can be reduced so that the Ecoprint products produced have good quality and prices that are more competitive in the market.
2. The existence of the *Mass Steammer Ecoprint* tool so that craftsmen can survive and be able to survive to continue the business that can support the family economy.
3. MSMEs that are members of SABARA can advance and develop and are able to compete with other craftsmen

## SUGGESTION

Innovation is the key to success in improving production skills. The use of alat mass steammer ecoprint as an alternative if you want to produce ecoprint fabrics in large quantities and with a fast process can help entrepreneurial businesses in increasing income levels while empowering the community.

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